

ABSTRACT OF THE DISCLOSURE

In SDH-based transmission systems with redundancy, in the event of failure in the service transmission lines, before the service traffic communication path set in the service transmission lines is switched to the protection transmission lines, if there is a communication path for sub traffic set in the protection transmission lines, the AU-AIS signal is inserted at the exit to lower-tier terminals to terminate the sub traffic communication path. Unless there is a communication path set for sub traffic in the protection transmission lines, the UNEQ signal is inserted at the exit to lower-tier terminals which are substantially connected to the protection transmission lines to terminate the sub traffic communication path. Later, the service traffic communication path is switched to the protection transmission lines. Then a misconnect during redundancy lines switching is prevented and the possibility of leak of the service traffic transmission information is eliminated.